King County Office of Information Resource Management

Response to Motion 13044



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1 Preface

On August 17, 2009, the King County Council passed Motion 13044, requesting that the Executive develop a plan to increase the County's level of information technology infrastructure maturity and capability. The motion specifically directs the Executive to "Prepare a plan for moving King County to level two of information technology operational maturity. The plan shall identify the costs and savings over a specified period that will be achieved by the transition to the next level of operational maturity."

The following report is the response by the Executive and the Chief Information Officer of King County in compliance with this motion, as it pertains to the Executive Branch.

2 Introduction

The 2008 Optimization Study conducted by King County was based on the industry standard model of infrastructure operational maturity. The results of the study provided the King County IT Reorganization Program Phase I with a roadmap to improve IT operational efficiencies within the Executive Branch.

The plan below describes a roadmap and a timeline to move King County IT to the "Standardized" level. This roadmap includes key milestones and tasks that need to be accomplished. Where possible, costs (level of effort and cost of software and/or hardware) and any associated benefits have been identified. In many cases, the plan leverages other documents and plans created as a part of the IT Reorganization Program – when applicable these documents have been incorporated into this report, either by inclusion or reference.

2.1 Scope of the 2008 Optimization Study

The 2008 study specifically focused on:

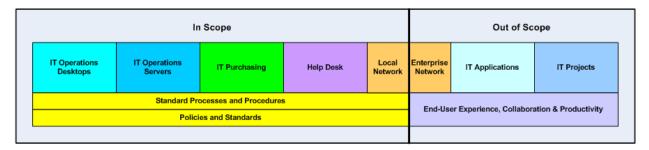
- 1. Inventory and acquisition policies and practices for personal computers, laptops, mobile devices, and servers
- 2. Deployment practices for personal computers, laptops, mobile devices, and servers
- 3. Management and monitoring capability of personal computers, laptops, mobile devices, and servers
- 4. Efficiency of problem resolution for personal computers, laptops, mobile devices, and servers

The study did not address the following:

- 1. Application development practices
- 2. Project management practices

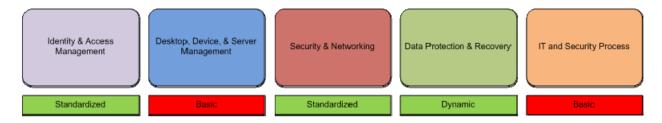
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3. Detailed implementation effort and costs for suggested solutions



2.2 2008 Study Findings and Results

The result of the study indicated overall that King County IT is at the "Basic" level of IT maturity. The Optimization Study identified five (5) major areas of capabilities and the respective maturity of each area (see representation below).



King County was found to be at the Basic level for two (2) of the capability areas and must focus on improvement in those areas in order to be at an overall "Standardized" level. The two (2) areas are:

- 1. Desktop, Device, and Server Management
- 2. IT and Security Processes

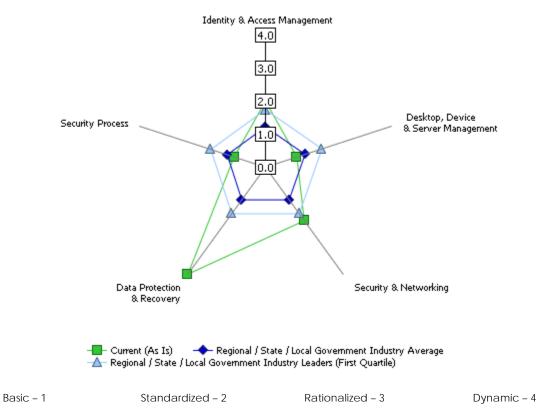
2.3 Study Benchmarks

As part of the 2008 study, the vendor provided a benchmark analysis of King County IT versus other state, regional, and local government operations. King County exceeded the industry average in three (3) of the five (5) infrastructure capability areas: Identity and Access Management; Security and Networking; and Data Protection and Recovery.

In the two (2) capability areas in which King County was determined to be at the Basic level—Desktop, Device, and Server Management, and IT and Security Processes – King County was very close to the industry average.

The following chart indicates the vendor's evaluation of King County IT in all five (5) capability areas, compared to both average and leading IT industry operations.

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The organization's current practices, average industry performers, and best in class performer rankings for comparison (Source: King County and IDC)

2.4 Council Motion 13044

Motion 13044 requests that the Executive develop a plan to increase the maturity and capability levels of the county's information technology infrastructure. The motion specifically requests the Executive to "prepare a plan for moving King County to level two of information technology operational maturity. The plan shall identify the costs and savings over a specified period that will be achieved by the transition to the next level of operational maturity."

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3 King County's Recommended Improvement Plan

This portion of the plan focuses on what King County needs to accomplish in order to move this capability from the Basic level to the Standardized level. This is the category with the largest number of required tasks. This category focuses on how an organization manages its computing environment. The computing environment includes all devices used by staff (personal computers, mobile devices, and laptops) as well as data center equipment, such as servers and networking equipment.

The Optimization Study identified the following key capabilities that need to be in place in order to move to the Standardized level:

- 1. Development of standards, policies, and procedures for:
 - a. Acquisition
 - b. Configuration
 - c. Deployment
 - d. Management
 - e. Reporting
- 2. Using technology to manage repetitive tasks, such as:
 - a. Desktop, device, and server deployments
 - b. Configuration management
 - c. Maintenance
- 3. Using technology to improve service delivery, such as:
 - a. Reliability of critical services such as email (load balancing and clustering)
 - b. Rapid resolution of problems by the Help Desk (remote diagnostics capability)
 - c. Rapid deployment and/or updates to client applications

King County's plan to reach Standardized level involves implementing recommended practices that are not already common practice in the county.

3.1 General Tasks

The following lists the status of key activities and accomplishments as part of various IT initiatives since 2008:

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Tasks	Status (X=Need to address)
Desktop Section	
No or limited administrative rights assigned to end/local users, minimal number of corporate images	
Centrally managed applications and automated software distribution	
Enforcing PC Procurement Policies for standardized hardware, software, and system configuration	Х
PCs and Notebooks are protected by centrally managed PC firewalls and equipped with anti-spyware/malware and automated patch distribution system in place	
Standard directory for authentication	
Server Section	
Server Clustering and load balancing by system and/or service	X
Standardized processes for Server Adds, Moves, and Changes	X
Standardized Hardware	X
Standardized server images with imaging and cloning capabilities	Х
Automated integration with Systems Management	Х
Ability to decommission server without affecting services	X
Integrated with Vendor QA Infrastructure	X
Software Imaging or Cloning (for New Servers)	Х
Remote Diagnostics capability for OS and Applications	X
Automated Patch Testing and deployment for server OS and applications, including rollback capability	Х
Ability to deploy without downtime (for Server Application / Service Maintenance)	х
Integrated with trouble handling infrastructure (for Server Application / Service Maintenance)	
Automated Backup and Restore	
Integration with Intrusion Detection System (IDS)	Х
Standardized Security Process	Х

3.2 Executive Department Scope Alignment

Below is a more detailed breakdown by Executive branch departments as to their status on each of the items listed above, as of June 2009:

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Task / Capability to Implement	DAJD	DNRP	DOT	DPH	OIRM	DCHS	DES	DDES
Desktop Section								
No or limited administrative rights assigned to end/local users	Х	0	Х	Х	1	Х	0	0
Push/Pull automated software distribution and/or virtualized dynamic								
application delivery (streaming)	х	х	Х	Х	х	Х	Χ	х
Enforcing PC Procurement Policies for standardized hardware, software,								
and system configuration	1	1	1	1	х	1	1	1
Use of minimal number of corporate images	Х	Х	Х	Х	Х	Χ	Χ	Х
Notebooks are protected by centrally managed PC firewalls	Х	Х	Х	Х	0	Х	Х	0
1 , , ,								
Notebooks and desktops are equipped with anti-spyware/malware	х	х	Х	х	х	Х	Х	х
Automated patch distribution system is in place for all notebooks and								
desktops	х	х	Х	Х	х	Х	Χ	х
Standardizing on a single directory for authentication	Х	Х	Х	Х	Х	Х	Х	Х
Reducing the number of third party application directories	Х	Х	Х	Х	Х	Х	Χ	Х
Centrally managed PC applications	Х	Х	Х	Х	Х	Х	Х	Х
, 5 11								
Server Section								
Server Clustering	0	0	0	0	1	0	0	0
Load Balancing within service/cluster	0	0	0	0	1	0	0	0
Standarized processes for Server Adds, Moves, and Changes	1	1	1	1	1	1	1	1
Standardized Hardware	1	1	1	Х	Х	1	1	1
Server Imaging or Cloning (for Existing Servers - Add Server Capacity)	0	Х	Х	Χ	0	0	Χ	Х
Standardized Images (for Existing Servers - Add Server Capacity)	0	Χ	Х	Х	0	0	Х	Х
Automated integration with Systems Management	0	0	0	0	0	0	0	0
Ability to decommission w/o downtime	0	0	0	0	0	0	0	0
Integrated with Vendor QA Infrastructure	0	0	0	0	0	0	0	0
Software Imaging or Cloning (for New Servers)	0	Χ	Χ	Х	0	0	Χ	Х
Standardized Images (for New Servers)	1	Χ	Χ	Х	1	1	Χ	Х
Remote Diagnostics capability (For Server Maintenance)	1	1	1	1	1	1	1	1
Automated Patch Testing (for Server OS)	1	1	1	1	1	1	1	1
Automated Patch Deployment/Rollback (for Server OS)	Х	Χ	Χ	Х	Х	Х	Х	Х
Remote Diagnostics Capability (for Server OS)	Х	Χ	Χ	Х	Х	Х	Χ	Х
Automated Patch Testing (for Server Application / Service Maintenance)	1	1	1	1	1	1	1	1
Automated Patch Deployment/Rollback (for Server Application / Service								
Maintenance)	Х	Χ	Χ	Х	Х	Х	Χ	Х
Ability to deplow without downtime (for Server Application / Service								
Maintenance)	0	0	0	0	0	0	0	0
Remote Diagnostics Capability (For Server Application / Service								
Maintenance)	Х	Χ	Χ	Х	Х	Χ	Χ	Χ
Integrated with trouble handling infrastructure (for Server Application /								
Service Maintenance)	Χ	Χ	Χ	Х	Х	Χ	Χ	Χ
Automated Backup	Χ	Χ	Χ	Χ	Χ	Χ	Χ	Χ
Automated Restore	Χ	Χ	Χ	Χ	Χ	Χ	Χ	Χ
Integration with Intrusion Detection System (IDS)	1	1	1	1	1	1	1	1
Standardized Security Process	1	1	1	1	1	1	1	1

- X = Department is now at Standardized for that function/capability
- 1 = Department improved between April 2008 and June 2009 and is currently addressing
- 0 = Department has not yet addressed that function

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3.3 Desktop, Device, and Server Management Tasks

The Desktop, Device, and Server Management capabilities are a set of practices that govern how an organization manages its hardware infrastructure and computing environment. This is the largest category of required tasks. The computing environment includes all devices used by staff (personal computers, mobile devices, and laptops), as well as data center equipment such as servers and networking equipment.

The table below outlines the major tasks required to advance King County's Executive branch IT capability to the Standardized level. These tasks will be addressed within the 2009 and 2010 timeframe, as part of the IT Reorganization Project work program. (See Appendix B).

Milestone	Task
	Standard images for new desktops
	Standard images for new servers
Davidon Chandanda	Standards for testing applications
Develop Standards, Policies, and Procedures	Standards for testing patches
rollcles, and rrocedures	Virtualization technology standards
	Standards for critical services availability
	Acquisition standards
	Identifying Systems Management Solutions
Solution Selection	Identifying capabilities of Systems Management Options
Solution Selection	Develop estimate for Cost of Implementation
	Recommendation & Acquisition
	Design
Solution Implementation	Implement
	Training

3.4 IT Security and Process Tasks

The IT Security and Process capabilities cover how an organization manages threats (e.g., computer virus and spam email), manages incidents, and resolves security-related issues.

The majority of tasks within this category involve the development of security standards and processes to manage incidents. The key areas to be addressed are:

- 1. Development of a policy to conduct ongoing security and risk assessments
- 2. Development of a policy and acquisition of a system that would verify and/or enforce security standards
- 3. Development of a policy to require a security review process as part of the acquisition process for new software

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4. Classification of information and application of security standards (e.g. Confidential Data versus Public Information, and other varying degrees of security/privacy)

The table below outlines the major tasks required to move to the Standardized level. These tasks will be addressed within the 2009 and 2010 timeframe, as part of the current IT Reorganization Project work program. (See Appendix B).

Milestone	Task
	Develop policy for a formalized information security risk management
	process that includes conducting security risk assessments (self or by 3rd
Dayalan Standards	party)
Develop Standards, Policies, and Procedures	Develop policy to verify and enforce security standards
Policies, and Procedures	Develop policy to review security requirements during software acquisition
	Develop policy to classify information based on security sensitivity
	Virtualization technology standards
	Identifying Systems Management Solutions
Calutian Calastian	Identify Security Management and Enforcement Solutions
Solution Selection	Develop estimate for Cost of Implementation
	Recommendation & Acquisition
	Design
Solution Implementation	Implement
	Training

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4 King County's Cost and Benefits for Proposed Plan

According to the 2008 study, implementing the proposed infrastructure and proposed infrastructure optimization practices is expected to take King County from its current Basic level to the Standardized level. This pertains to the 9,507 total computer users (including 7,108 PCs, 162 thin clients, 385 mobile messaging devices, and 563 servers) that the IT organization supports and is under consideration for optimization. These numbers are based on the 2008 statistics, and assumed the continued successful efforts of Phase I of the IT Reorganization Program.

Along these lines, in September 2009, the IT Reorganization Program published an Updated Benefits Realization Plan. (See Appendix C). This document explicitly addressed both the planned investments and expected benefits associated with IT maturity, as is being addressed by the IT Reorganization Program.

The Updated Benefits Realization Plan also directly aligns the IT Reorganization Program with IT maturity. That specific section of the Updated Benefits Realization Plan is included herein to re-iterate that alignment.

4.1 Background

King County's technology infrastructure is an important asset that is relied upon by all departments and agencies throughout the County in order to complete their public service mission, goals, and mandates.

Because of the heavy reliance on this 'asset', it is incumbent upon the County to manage it effectively. One way to determine if this asset is being effectively managed is to assess the County's overall IT capability and maturity in comparison with other similar organizations. King County IT intends to continually improve its capability over time. To do so, it will periodically re-assess its maturity in order to determine progress over time and to continually identify improvement opportunities.

King County's Executive branch, as part of the IT Reorganization Program, conducted an analysis of its IT operational maturity using Microsoft's Infrastructure Optimization model in April 2008. This model identifies four (4) levels of overall IT infrastructure maturity and capability. These include:

- 1. Basic
- 2. Standardized
- 3. Rationalized
- 4. Dynamic

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The analysis was performed by Microsoft using actual metrics collected from King County and using a third party assessment tool developed by Alinean. The result of the analysis was a customized assessment report indicating King County's comparative capability and maturity in relation to its peers. Also included in the report are targeted improvement areas leading to increased operational capability and maturity. The detailed assessment report and appendices to the report are available upon request.

King County's identified overall level of maturity is Basic – the first level of maturity in the model. While this seems low, a detailed breakout showed that King County placed slightly above the regional/state/local government industry peer group average in some areas, and slightly lower in others.

The current efforts of the IT Reorganization program, once implemented, should place the County on-par with regional/state/local government industry leaders that are at the standardized level (level 2) of capability and maturity.

4.2 Opportunity

King County has the potential for significant labor efficiencies, as well as improved customer service. This can be accomplished by moving to the rationalized level of maturity (level 3) through implementation and utilization of additional best practices in the areas of Server Operations, Workstation Operations, and Service Center Operations. The description of a 'Rationalized' level of maturity is:

"Rationalized – IT organizations have very low IT labor costs and show modest improvement in services levels and agility compared with the two lower groups. These organizations use many IT best practices and automate and standardize the IT infrastructure wherever possible. This leads to more funds being available for innovation investments."

This effort will implement best practices as well as automated, pro-active toolsets to improve the management of the County's server, workstation and service center operations. These improvements should result in significant labor efficiencies of over 41,000 hours annually based on benchmark comparisons with peer organizations, meeting another important IT Reorganization Program goal of efficient operations. Future evaluation will need to occur to determine how to best repurpose these efficiencies—to IT operations or to improve IT customer service.

This opportunity is dependent upon accomplishing the IT Reorganization Work Program outlined for Organization Transition and the Technology Initiatives and is timed to occur after these are completed. The following sections provide additional detail about the three (3) areas of focus: server operations, workstation operations, and service center.

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4.3 Server Operations

4.3.1 Description

Moving the County's server operations to a "Rationalized" level will require improvements in addition to the Technology Initiatives already underway in the areas of:

- Automated server operating system image deployment
- Defined set of standard basic images for 80% or more of servers
- Expanded use of virtualization technology
- Service level agreements for more than 80% of servers and central monitoring of these servers

4.3.2 Benefits

By making these improvements, total labor efficiency is projected at 9,580 hours annually (when combined with the previous Technology Initiative). Future evaluation will be needed to determine how best to repurpose these efficiencies—to gaps in operations or to improve customer service.

The estimated costs associated with implementing these additional best practices have been estimated at \$400,000 for both server and desktop operations. This does not include the costs of internal staff labor.

4.4 Desktop Operations

4.4.1 Description

Moving the County's desktop operations to the Rationalized level will require improvements in addition to those currently underway in the areas of:

- Automated operating system image deployment to desktops
- Automated tracking of hardware and software assets
- Formalized application compatibility testing and packaging of application installations
- Expanded use of virtualization technology

4.4.2 Benefits

By making these improvements, total labor efficiencies are projected at 11,000 additional hours annually beyond what is expected from the current technology initiatives already discussed.

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Future evaluation will need to occur to determine how to best repurpose these—to gaps in operations or to improve customer service.

As mentioned under server operations, the estimated costs associated with implementing these additional best practices has been estimated at \$400,000 for both server and desktop operations. This does not include the costs of internal staff labor.

4.5 Service Center Operations

4.5.1 Description

Moving the County's service center performance to a Rationalized level is primarily dependent upon the improvements in the server and desktop areas. By realizing benefits in these areas, the service center will be able to respond to and solve incidents more quickly; there will also be fewer incidents to respond to.

Moving performance to the Rationalized level also requires that processes be in place for standard ticket tracking, incident resolution, and problem resolution, as well as dedicated staff for these activities.

4.5.2 Benefits

It is anticipated that labor efficiencies related to all tiers of incident/problem resolution (this includes answering calls, as well as experts required to resolve difficult technical issues) will be approximately 20,500 hours. These efficiencies are anticipated based on the expectation of a reduced effort related to handling incident and trouble calls as infrastructure and related support practices improve. Not only will there be fewer service interruptions, but the time and resources it takes to address those that do occur should be drastically reduced. Many of the problems will be taken care of proactively, as part of ongoing operations, so that the help desk operations never become involved. Future evaluation will need to occur to determine how to best repurpose these efficiencies—to gaps in operations or to improve customer service.

Unlike the other two (2) efforts, this effort is not expected to have any additional implementation costs. However, it does rely on the Server and Desktop operational improvements previously identified.

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Appendix A: IT Capability and Maturity Models

IDC Infrastructure Optimization

While the average IT budget increases 5-6 percent each year, 61 percent of the budget is spent to fixed operations, and only 14 percent of annual spending is for innovative new applications and functions the business needs. The highest performing organizations realize that the ability to reallocate IT spending from keeping the lights on to innovation can help drive superior performance. With 56 percent of infrastructure total cost of ownership devoted to labor or equivalents, the obvious focus should be on improving IT productivity in order to free resources for innovation.

Looking for the most effective way to improve IT productivity while driving higher service levels, agility and innovation, IDC in 2006 and 2007 conducted studies of almost 1,000 worldwide IT organizations examining best practice levels and costs / business value. The research focused on three metrics of the IT infrastructure:

- IT labor costs
- Service levels
- Business agility

Based on the study group's capability and maturity best practices, IDC segmented the organizations into the following groups:

Basic – IT organizations are the least efficient performers and have high costs and average service levels and agility. These organizations typically use few best practices and as a result have higher management costs and lower service levels. These organizations have the lowest percentage of spending on innovation, because more of the budget needs to be allocated to day-to-day operations.

Standardized – IT organizations have somewhat better IT costs with similar service levels and agility when compared with Basic organizations. These firms leverage some of the easier-to-implement best practices. These companies have average levels of innovation investments.

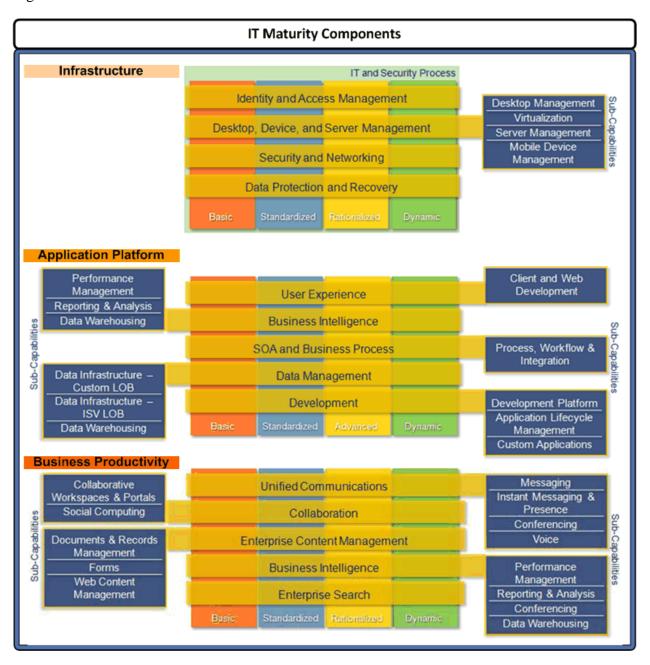
Rationalized – IT organizations have very low IT labor costs and show modest improvements in service levels and agility compared with the two lower groups. These organizations use many IT best practices and automate and standardize the IT infrastructure wherever possible. This leads to more funds being available for innovation investments.

Dynamic – IT organizations shift the focus from cost reductions to enabling business with optimal service levels and agility. Dynamic organizations may even choose to accept best practices that increase costs to optimize service levels and agility. Few Dynamic organizations exist today, largely because many of the prerequisite technologies are not available from a single

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vendor and must be assembled from an array of technologies from multiple vendors. No organizations that qualified as Dynamic were interviewed for this research.

These four groups are collectively defined within a framework known as the Infrastructure Optimization Model (IOM). Microsoft was the lead developer of the IOM, an operational benchmark for gauging the maturity of a company's IT infrastructure. IDC's research proved that understanding and migrating through levels of this optimization model yielded significant cost savings, service level and agility improvements, and a healthy ROI for the average organization.



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Additional information on these studies and research can be obtained from the following white papers:

- IDC Core Infrastructure Optimization White Papers
 - The relationship between IT labor costs and best practices for managing the Windows desktop
 - The relationship between IT labor costs and best practices for identity and access management with Active Directory
 - Windows Server Best Practices
 - The relationship between IT labor costs and best practices for Systems Management Server
 - Messaging and Collaboration Best Practices
 - o Developing an IO Strategy
 - o Analysis of the business value of Windows Vista
- Microsoft White Papers
 - o Infrastructure Optimization: Driving Down the Costs of the Business Desktop
 - Microsoft Desktop Optimization Pack for Software Assurance Wipro Product Strategy and Architecture Practice's Analysis of Features, Cost Benefits, and Effects on IT Best Practices that Improve IT Infrastructure Optimization

ITIL and SEI-CMMI

The Information Technology Infrastructure Library (ITIL) is a set of concepts and policies for managing information technology infrastructure, development and operations. It is the most widely accepted approach to IT service management in the world.

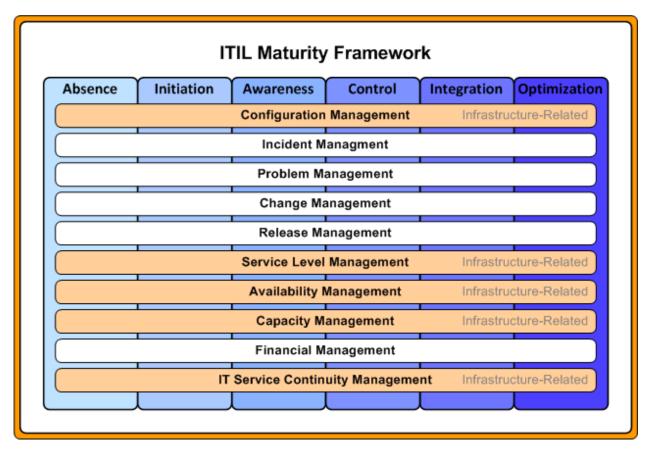
ITIL is based on the principles of an "IT service" model, where all IT functions are generally defined as services that involve both technology infrastructure and person-based support. The management and evolving maturity of those services involve five steps:

- 1. Service Strategy
- 2. Service Design
- 3. Service Transition
- 4. Service Operation

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5. Continual Service Improvement

ITIL defines some of the services associated with its six-level maturity framework. That framework (with functions represented horizontally across the six levels of maturity) is below:



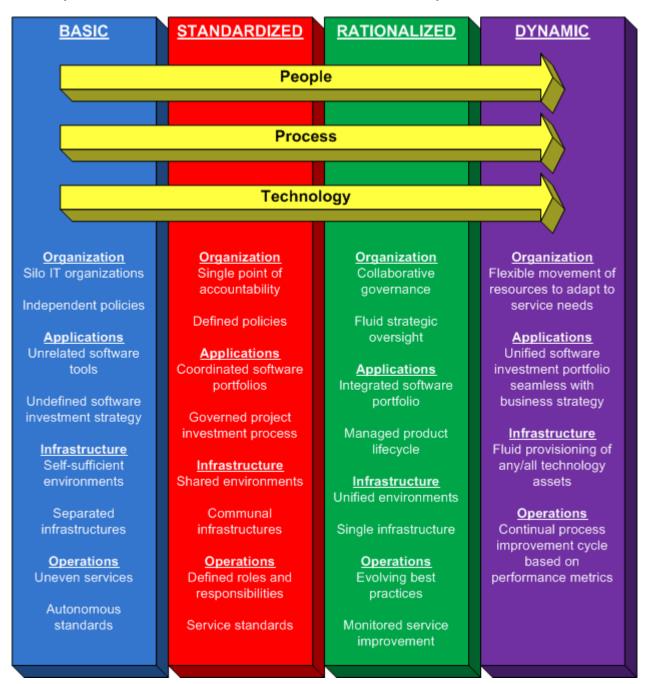
SEI-CMMI refers to the "Software Engineering Institute Capability Maturity Model (Integrated)". It is a product of Carnegie Mellon, and various versions of it have been used as a standard for IT maturity for decades. Depending upon the IT operation in question, there are different CMMI models for Services, Acquisition, and Development. CMMI maturity is typically defined in five levels:

- 1. Initial (or Performed)
- 2. Managed
- 3. Defined
- 4. Quantified
- 5. Optimized

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Summary View of Maturity Models

For the purposes of King County's IT maturity analysis, the county has used the model primarily defined by the IDC, Microsoft and Gartner. The following graphic provides a very high-level summary of this model, with some basic attributes of each maturity level.



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Appendix B: IT Improvements To-Date and IT Reorganization Program Milestones

King County IT has made improvements to its overall IT maturity, both before and since 2008. Those efforts have stemmed from a variety of initiatives, including the IT Reorganization Program, IT Governance, IT Security and Privacy Program, and the ABT Program. The following table indicates the functional areas King County IT has addressed, and the initiatives that have produced the results. These accomplishments are aligned to the four functional areas typical in an IT maturity model – Organization, Applications, Infrastructure, and Operations.

Organization	Initiative	Complete
Countywide Information Technology (IT) Governance	IT Gov	✓
Countywide IT Policies, Standards, Guidelines and Methods	IT Gov	✓
Countywide IT projects oversight and Project Management Methodology	IT Gov	✓
Create King County strategy for improving IT maturity to 'Standardized'	STP 2009	✓
IT organization structure with single line of accountability	IT Reorg	✓
Joint Labor Management for IT committee established	IT Reorg	✓
Reduction in IT workforce $2\underline{28.5}$ (2007 = 3, 2008 = 3, 2009 = 9, 2010 = $\underline{713.5}$)	IT Reorg	✓
Comprehensive business plan for IT established	IT Reorg	✓
Single IT Service Center established	IT Reorg	{2010}
Extensive implementation of security and privacy tools and governance oversight	IS & P	✓
Applications	Initiative	Complete
Enterprise help desk system in place	IT Reorg	{2010}
Enterprise asset management system in place	IT Reorg	{2010}
Enterprise collaboration, content management, search tools in place	IT Reorg	{2009}
Power management software deployed to 7,000 desktops	IT Reorg	✓
Single portfolio for financial, budget, and HR systems	ABT	{2012}
Enterprise Electronic Records Management System	ERMS	{2010}
Centralized security vulnerability detection and malicious software protection	IS & P	✓
eMail encryption (HIPAA)	IS & P	✓
Secure transfer of files across the KC network and externally	IS & P	{2009}
Infrastructure	Initiative	Executive
\$2.4 million in savings over 5 year in place for multi-year contracts (2008-2012)	IT Reorg	√
\$1.5 million in savings for changes in telecommunication plan mgmt (2009-2012)	IT Reorg	✓
Consolidate data center operations into single facility	DC Relo	{2009}
Begin reducing county server counts through virtualization	IT Reorg	✓
Achieve goals for server reductions through virtualization and consolidation	IT Reorg	{2012}
150 alternate workstations replaced PCs	IT Reorg	√
796 additional alternate workstations will be in place in 2009 - 2010	IT Reorg	{2009}
Operations	Initiative	Executive

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IT service delivery plan in place for each department	IT Reorg	✓
Quarterly IT operational reviews established with CIO and department directors	IT Reorg	✓
IT performance metrics defined and implemented	IT Reorg	✓
Single point of contact for help desk services (one web page, one phone number)	IT Reorg	✓
Enterprise IT change management process established	IT Reorg	{2010}
Information Security and Privacy roles and responsibilities established	IS & P	✓

In addition to the specific functional and technical improvements achieved by multiple IT initiatives over the past 18 months, the IT Reorganization Program has defined business-based milestones associated with existing initiatives. Those milestones, along with their phased outcomes and target dates, are represented in the table below. In all cases, the outcomes pertain to Phase I (Executive Branch) of the program. (*Checked outcomes indicate either completion or on target for 2009 completion*.)

Major Milestones by Initiative			Phased Outcomes	
Or	Organization Transition			
1.	One IT organization in place in the Executive Branch	$\overline{\mathbf{N}}$	Phase 1 – KCIT organization structure in place with single line of accountability to the CIO	Jan 2009
Se	rvice Delivery Improvements			
2.	Quarterly performance reporting in place to measure all aspects of KCIT service delivery	N N	Phase 1 – Measurements in place for KCIT Phase 2 – Detailed implementation plan for integrated performance reporting created Phase 3 - Improved reporting tool integrated with	Dec 2008 Dec 2009 March 2010
	delivery		help desk and system monitoring tools	Widien 2010
3.	IT project management selection process policy implemented countywide with PRB oversight	V	Phase 1 – Countywide policy signed, training offered, and policy transitioned to PRB for compliance	Sep 2009
4.	Updated IT project management tools and templates available and	Ø	Phase 1 – Updated methodology and templates are available countywide, PMs know where to find them and how to use them	Sep 2009
	reporting to PRB streamlined		Phase 2 - Shared PM workspace for use by project teams, reporting to PRB and document/template library is available countywide and PMs know how to use it	Feb 2010
5.	IT Strategic Plan, Technology Business Plan, and IT Service	V	Phase 1 – Integrated planning process in place and roadmap provided to KCIT leadership team	March 2009
	Delivery Plans unified, integrated and in place	V	Phase 2 – Updated service delivery plan template that is metric focused is available for KCIT leadership team use in developing updates for 2010 and integrating with technology business plan and IT strategic plan	Dec 2009

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Major Milestones by Initiative	Phased Outcomes	Target Date
6. Multi-year contracts in place for contracts due in 2009	☑ Phase 1 – Contracts due for renewal in 2009 have been renegotiated/rebid to lower pricing; cost savings/avoidance target for 2010 is \$596,000	Dec 2009
	☑ Phase 2 – Additional opportunities for 2010 known and work plan established	Dec 2009
7. Change management in place for changes to all KCIT	☑ Phase 1 – New change management process using new charter, forms and processes implemented	Nov 2009
systems and infrastructure	☐ Phase 2 – Helpdesk tool evaluated to see what change management capabilities and processes are available and decision point on whether to implement	Sep 2010
8. Baseline for I-Net, Radio and Executive Branch customer satisfaction established and	☑ Phase 1 – Customers surveyed and survey results available for use in planning cultural change and customer service training	Oct 2009
ready for annual updates	☑ Phase 2 – Action plans are developed and turned over to respective operational areas	Nov 2009
	☑ Phase 3 - Survey update process in place and turned over to KCIT HR for future execution	Dec 2009
9. Customer service training for KCIT staff in place	☐ Phase 1 – Basic IT customer service training elements included with training on help desk tools and processes	Dec 2009
10. Telecommunications practices, services and administration are	☑ Phase 1 – County cell phones plans consolidated, users moved to pooled minute plans, and quarterly review process in place	Nov 2008
standardized countywide	☑ Phase 2 – Telecommunications policy signed and implemented	Sep 2009
	☑ Phase 3 – Single database and standard practice in place for billing customers	Sep 2009
	☑ Phase 4 – All wireless plans offered by the County and information for telecom coordinators are available on the web	Dec 2009
11. IPT implemented countywide as "next generation opportunity"	☐ Phase 1 – Appropriation received Q1 2010; consultant contract signed, and assessment completed	Mar 2010
	☐ Phase 2 – Business case and cost benefit analysis completed for Q3 2010 supplemental appropriation request	June 2010
	☐ Phase 3 – Implementation of 24-month project to begin after Q3 2010 supplemental approved	TBD
Service Center		
12. One KCIT asset inventory in place for countywide use	☐ Phase 1 – Countywide physical inventory completed and loaded into database (LANDesk)	Dec 2009
, ,, ,, ,, ,,	☐ Phase 2 – Auto-discovery implemented (if funding available)	Mar 2010

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Major Milestones by Initiative	Phased Outcomes	Target Date
13. One KCIT Help Desk in place for countywide use	☑ Phase 0 - Help Desk model established to articulate approach	March 2009
	☑ Phase 1 – Standard tool agreed to, purchased and configured to meet KCIT needs	Nov 2009
	☐ Phase 1a - Heat & Track-IT users know how to and are using new tool, standard processes and procedures for KCIT	Jan 2010
	Phase 2 - KCIT help desks are physically consolidated by building and reporting relationships re-structured	Jun 2010
Server Consolidation		
14. Maximize utilization of IT assets as enterprise resources	SharePoint ☐ Phase 1 – Hosted SharePoint service ready, training available, and governance process in	Sep 2009
	place to support agency deployments ☐ Phase 2 – Decision to bring SharePoint hardware & software in-house to meet increasing agency demand	Dec 2010
	Consolidation/Virtualization ☑ Phase 1 – Departments have consolidated and virtualized 66 servers leaving 558 servers at the end of 2009	Dec 2009
	☐ Phase 2 – Departments have consolidated and virtualized 138 servers leaving 486 servers at the end of 2010	Dec 2010
	Phase 3 – Departments have consolidated and virtualized 192 servers leaving 432 servers at the end of 2011	Dec 2011
Workstation Standardization		
15. Configuration of all KCIT workstations standardized to reduce support effort and	☑ Phase 1 – Thin clients service, deployment guidelines, and test environment made available for agency deployments	April 2008
costs	☑ Phase 2 – Departments replaced PCs with 350 alternate workstation devices in 2009	Dec 2009
	□ Phase 3 – Departments replaced PCs with additional 596 alternate workstation devices in 2010 for a total of 946 alternate workstation devices in place	Dec 2010

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Appendix C: IT Reorganization Program Updated Benefits Realization Plan (Attached)

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